

SOV/2o-121-4-3o/54

The Coefficients of the Equilibrium Distribution of Deuterium in the Isotope Exchange Between Water and Some Thiols

(after 2 hours after the exchange with thiophenol) and after 2 - 4 hours at 80°. In addition to the experiments concerning the direct exchange (between water enriched by deuterium and thiol of a natural deuterium concentration), for each of the investigated types of thiol one experiment concerning the inverse exchange at 20° was carried out. The results of the experimental determination of the coefficient α of the equilibrium distribution (for various temperatures) are given in a table. The corresponding errors are then discussed. Under the discussed conditions of the isotope exchange, only the hydrogen isotopes of the group S-H participate in the reaction. The temperature dependence of α is shown in a diagram and the corresponding analytic expressions $\lg(\alpha) = f(T)$ for the various thiols are explicitly given. However, the results of this paper and also previous results are not sufficient for the finding of a direct connection between the quantity α and the composition (and the structure) of the radical group. It is only evident, that the influence of the structure and of the composition of the radical group on the value of α is

Card 2/3

SOV/20-121-4-30/54

The Coefficients of the Equilibrium Distribution of Deuterium in the Isotope Exchange Between Water and Some Thiols

weak. There are 1 figure, 1 table, and 10 references, 5 of which are Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova
(Physical-Chemical Institute imeni L. Ya. Karpov)

SUBMITTED: May 13, 1958

Card 3/3

sov/63-4-1-23/31

5(3)

AUTHORS: Sakodynskiy, K.I., Babkov, S.I.

TITLE: Mutual Solubility of Water and Some Thiols (Vzaimnaya rastvorimost' vody i nekotorykh tiolov)

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr 1, p 133 (USSR)

ABSTRACT: The solubility of the following thiols in water and the solubility of water in them has been investigated: normal butylthiol, secondary butylthiol, isoamylthiol, normal hexylthiol and thiophenol. The solubility of the thiols in water is inversely proportional to the molecular weight. At an increase of temperature the solubility of n-butylthiol and thiophenol rises, but that of isoamylthiol decreases. The solubility of water in the thiols increases with temperature.

Card 1/2

Mutual Solubility of Water and Some Thiols

SOV/63-4-1-23/31

ASSOCIATION: Fiziko-khimicheskiy institut imeni L.Ya. Karpova (Physical-Chemical Institute imeni L.Ya. Karpov)

SUBMITTED: July 16, 1958

Card 2/2

BABKOV, S.I. , SHAVORONKOV, N.M., CHERNYKH, G.N. AND STRELTSOV, L.V.

"Die Kinetik der Isotopenanreicherung in vielstufigen Kolonnen."

Report presented at the 2nd Intl. Conf. on Stable Isotopes.

East German Academy of Sciences, Inst. of Applied Physical Material
Leipzig, GDR 30 Oct - 4 Nov 1961.

MALYUSOV, V.A.; ZHAVORONKOV, N.M.; MALAFEYEV, N.A.; ROMEYKOV, R.N.;
Prinimali uchastiye: BABKOV, S.I.; UVAROV, O.V.; SOLYANKIN,
L.N.; GRISHIN, D.M.

Effectiveness of regular packings in the rectification of water.
Khim.prom. no.7:519-529 JL '62. (MIRA 15:9)
(Packed towers)

SAKODYNSKIY, K.I.; BABKOV, S.I.; ZHAVORONKOV, N.M. (Moscow)

Isotopic hydrogen exchange between water and thiols. Zhur.fiz.khim.
36 no.10:2169-2175 O '62. (MIRA 17:4)

l. Fiziko-khimicheskiy institut imeni Karpova, Moskva.

BABKOV, S. I.; SHAVORONKOV, N.M.; STRELTSOV, L.V.; CHERNYKH, G.N.;

Über die zeitliche Annäherung an den stationären Zustand bei der Trennung stabiler Isotope
in Kolonnen. (Berechnungen auf einer elektronischen Rechenmaschine)

Third Working Conference on Stable Isotopes, 28 October to 2 November 1963, Leipzig.

S/123/59/000/010/053/068
A004/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1959, No. 10, pp. 186-187, # 38656

AUTHORS: Khitrik, S. I., Kazachkov, I. P., Zavaluyev, I. F., Babkov, P. M.,
Moshkevich, Ye. I.

TITLE: The Effects of Nonmetallic Impurities of Ferrochrome on the Quality
of Stainless Steel

PERIODICAL: Tekhn.-ekon. byul. Sovnarkhoz Zaporoshch. ekon. adm. r-na, 1958,
No. 3, pp. 44-47

TEXT: The contents of nonmetallic impurities in carbon-free ferrochrome fluctuates within a wide range and principally is directly interdependent on the magnitude of Si-content in it. Si, lowering the solubility of O₂ in ferrochrome, combines with it and forms oxides. Holding the liquid ferrochrome in the ladle under a vacuum ensures a liberation of the gases and leads to an intensive agitation of the metal. The continuous exchange of metal being in contact with slag promotes the oxidation of Si by slag oxides. The passing over into the slag of suspended nonmetallic impurities in the metal agitated and cooled by vacuum treat-

Card 1/3

S/123/59/000/010/053/068
A004/A001

The Effects of Nonmetallic Impurities of Ferrochrome on the Quality of Stainless Steel.

ment, is facilitated. In vacuum-treated ferrochrome the Si-content is considerably lowered and, correspondingly also that of the nonmetallic impurities (approximately 35%). Test ingots of the 2Kh13 (2Kh13) grade stainless steel, weighing 2.8 tons, were smelted in 20-ton electric furnaces from a fresh charge with additions of vacuum-treated and non-treated Xp00 (Khr00) grade ferrochrome to the nonreduced metal in amount of 25% of the melt weight. Vacuum-treated ferrochrome differs from the non-vacuum-treated by a lower content of nonmetallic impurities (on the average by 25%) and a somewhat higher Si-content (on the average by 0.12%). An analysis of the content of nonmetallic impurities in steel assays taken from the melt in the middle of the teeming, showed that the degree of contamination of ferrochrome by nonmetallic impurities affects also the purity of the steel, by 16% on the average. An increase of the Si-content in ferrochrome affects the degree of steel contamination with nonmetallic impurities. Si, introduced into steel, quickly oxidizes, and since the 2Kh13 grade steel is of a high ductility, it is difficult to float the impurities, which have been brought in by the ferrochrome and which were formed owing to Si-oxidation, into the slag. The

Card 2/3

S/123/59/000/010/053/068
A004/A001

The Effects of Nonmetallic Impurities of Ferrochrome on the Quality of Stainless Steel

remainder of nonmetallic impurities in steel depends on its degree of contamination at the moment of deoxidation by aluminum. A direct dependence has been established between the presence of fine cracks in rolled steel and the content of nonmetallic impurities in it and the Si-content brought in with ferrochrome. In order to obtain a high-quality 2Kh13 stainless steel, vacuum-treated ferrochrome with a Si-content of not higher than 0,7 - 0,75% should be used. There are 4 figures.

K. I. B.

Translator's note: This is the full translation of the original Russian abstract.

Card 3/3

S/137/61/CCO/CO8/011/037
AC60/A101

AUTHORS: Chuyko, N. M., Rutkovskiy, V. B., Perevynazko, A. T., Antipenko, O.I.,
Babkov, T. M., Kurganov, V. V., Frantsov, V. P.

TITLE: Technique for smelting electric steel involving the treatment of
the metal by slags in the ladle

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 8, 1961, 36, abstract 8V225
("Metallurg. i gornorudn. prom-st'. Nauchno-tekhn. sb.", 1960, no. 4,
31-34)

TEXT: A new technique for smelting structural and ball-bearing steels was
worked out by the plant "Dneproprosstsatal" and by the Dnepropetrovsk Metallurgical
Institute. The technique provides for the preliminary reduction of the metal by
Fe-Mn and Fe-Si or by Si-Mn and the subsequent aftercharging with Fe-Cr. The
slag is reduced by ground 75% Fe-Si and coke, the final reduction is carried out
by Al bars in the ladle, and the metal is slag-treated on drawing off. The use
of the technique in the smelting of various grades of structural and ball-bearing
steels in large (55 ton) electric furnaces makes it possible to raise somewhat ✓

Card 1/2

3

3

S/137/61/000/008/011/057
A060/A101

Technique for smelting electric steel ...

the metal quality, to reduce the smelting duration by 20 - 40 min, and reduce
the electric power expenditure by 40 - 50 kwhr/ton.

V. Shumskiy

[Abstracter's note: Complete translation] ✓

Card 2/2

BABAKOV, A.A.; FEDOROVA, V.I.; SOLOV'YEV, L.L.; LOLA, V.N.; DODOKA, L.I.;
CHERKASHINA, N.P.; SHAMIL', Yu.P.; SMOLYAKOV, V.F.; BABKOV, T.M.;
MOSHKEVICH, Ye.I.; PARADA, A.N.; REPESHKO-KRAVCHENKO, S.I.;
ALEKSEYENKO, M.F.; KOROBKO, M.I.; KOROBKO, I.M.; AVERIN, N.M.;
MATOV, A.A.; MIGUTSKIY, L.R.

Inventions. Met. i gornorud. prom. no.4:83 Jl-Ag '64.
(MIRA 18:7)

L 63561-55 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) MJW/JD/
ACCESSION NR: AP5013229 HW UR/0133/65/000/005/0420/0422
669.187.2

AUTHOR: Moshkevich, Ye. I.; Smolyakov, V. F.; Babkov, T. M.; Shamill', Yu. P.

37
36

TITLE: Production of DI-6 (Kh13G14N3) steel

B

SOURCE: Stal', no. 5, 1965, 420-422

TOPIC TAGS: stainless steel, steel sheet, chromium-manganese-nickel steel

4

ABSTRACT: A new low-nickel stainless steel, DI-6, to replace Kh18N10T steel in equipment operating in moderately corrosive media is described. A ferrite content of 1-3% was found in samples at room temperature and also in samples heated to 1250°C, held for 2 hours and quenched. Basic mechanical properties, which meet specifications, are shown. Although the metal consumption coefficient for DI-6 is higher than that for Kh18N10T, it is believed that this will be corrected by future production improvements and increased demand for the product. Two methods, the new charge method and the remelt method, were used. Preference was given to the remelt method as it is more economical and requires less time. This method involves the use of stainless steel scrap, DI-6 scrap, carbon, silicon and ferrochrome scrap,

Card 1/2

L 63561-65

ACCESSION NR: AP5013229

oxygen injection, and slag deoxidation. Alloying with manganese and adjustment of the metal with chromium and nickel was begun at a temperature of 1650-1680°C. From the point of view of slab defects, a ladle temperature between 1500 and 1510°C and filling times of 140-200 seconds for 11-13-ton slabs were found to be optimal. Slabs had good surface characteristics with the introduction of flame cleaning as one means of obtaining a good surface. The cost of DI-6 slabs is found to be 30% lower per ton than that for 1Kh18N10T. Orig. art. has: 3 figures, 4 tables.

ASSOCIATION: Zavod "Dneprospetsstal'" (Dneprospetsstal' Plant)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF Sov: 001

OTHER: 000

dpm
Card 272

ARTEM'YEV, S.; BABKOV, V.; BIRULYA, A.; BOGOMOLOV, A.; BOCHIN, V.; BRILING, N.;
VAKHRUSHIN, N.; VOLKOV, M.; GURARIY, M.; DAIENKOV, Yu.; YEFREMOV, V.;
ZELENKOV, G.; IVANOV, N.; IGOLKIN, N.; KUDRYAVTSEV, A.; LITVIN, N.
MIKHAYLOV, V.; PROKOF'YEV, I.; SARKIS'YANTS, G.; ROMANENKO, I.;
STRAMENTOV, A.; FEDOROV, V.; KHACHATUROV, A. i dr.

Anatolii Pavlovich Khmel'nitskii. Avt. dor. 21 no.12:30 D '58.
(MIRA 12:1)
(Khmel'nitskii, Anatolii Pavlovich, 1907-1958)

BABKOV, V., prof., doktor tekhn. nauk; NIKOLAYEVSKIY, G., dotsent, kand. tekhn. nauk

Efficient design of automobile roads. Tekh. est. 2 no.8:24-25 Ag '65.
(MIRA 18:9)
1. Moskovskiy avtomobil'no-dorozhnyy institut (for Babkov). 2. Khar'kov-
skiy avtomobil'no-dorozhnyy institut (for Nikolayevskiy).

VOLKOVA, Ye.I., inzh.; KHIRIN, N.D., inzh.; BARYSHNIKOV, A.P., inzh.;
KOZHEVNIKOV, G.A., inzh.; KHOKHRIN, K.G., inzh.; BABKOV, V.A.,
inzh.; VNUKOV, A.K., kand.tekhn.nauk

Starting clutch for draft and blowing machinery and pit mills.
Teploenergetika 8 no.6:31-32 Je '61. (MIRA 14:10)

1. Yuzhnoye otdeleniye Gosudarstvennogo tresta po organizatsii i
ratsionalizatsii elektrostantsiy.
(Clutches (Machinery))
(Electric power plants—Equipment and supplies)

PA 45/49T44

BABKOV, V. F.

USSR/Engineering
Motor Vehicles
Roads, Earth

Mar 49

"Conference on the Operation of Wheel and Track
Vehicles on New Dirt Roads," V. F. Babkov, 4 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 3

Brief accounts of reports submitted by Automobile
Lab, Inst of Mach Studies, Acad Sci USSR, which con-
ducted a series of experiments to determine ability
of various track and wheel vehicles to pass over
dirt roads. Recommends similar studies at least
once every 2 years.

45/49T44

BABKOV, V. F.

SAKHAROV, V., inzhener; SMIRNOV, L., inzhener; ZELENEVSKIY, V., inzhener;
KARAGODIN, V., inzhener; KNORRE, V., inzhener; LEBEDEV, N., inzhener;
AKSEL'ROD, L., inzhener [reviewers]; STRAMENTOV, A.Ye., professor, doktor
tekhnicheskikh nauk [author]; BABKOV, V.F., dotsent, kandidat tekhnicheskikh
nauk [redaktor].

Review of A.E.Stramentov's book "City Roads." V.Sakharov, L.Smirnov,
V.Zelenevskii, V.Karagodin, V.Knorre, N.Lebedev, L.Aksel'rod. Gor.khos.
Mosk. 25 no.9:34-35 S '51. (MLRA 6:11)

(Road construction)

BABKOV, V.F.

ANDREYEV, O.V.; BABKOV, V.F.; ZAMAKHAYEV, M.S.; KRUTETSKIY, Ye.V.;
PLOTNIKOV, S.A., redaktor; GALANTIONOVA, Ye.N., tekhnicheskiy
redaktor

[Exercises for a course in automobile road planning] Uprashneniya
po kursu proektirovaniia avtomobil'nykh dorog. Moskva, Izd-vo
dorozhno-tekhn. lit-ry Gushosdora MVD SSSR. Pt.2. 1952. 256 p.
[Microfilm]

(MIRA 7:10)

1. Moscow. Avtomobil'no-dorozhnyy institut
(Roads--Design)

See also 101

STRAMENTOV, A.Ye., professor, doktor tekhnicheskikh nauk; MERKULOV, Ye.A.,
dotsent, kandidat tekhnicheskikh nauk; BABKOV, V.P., redaktor;
PETROVSKAYA, Ye., tekhnicheskiy redaktor

[Planning city streets] Proektirovaniye gorodskikh dorog. Moskva,
Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1952. 495 p.
[Microfilm]
(Streets)

(MLRA 7:10)

BABKOV, V.F.; VOLKOV, A.Ya.; GERBURT-GEYBOVICH, A.V.; ZAMAKHAYEV, M.S.;
VAL'KHOVSKIN, N.P., redaktor; MAL'KOVA, N.V., redaktor.

[automobile roads] Avtomobil'nye dorogi. Moskva, Avtotransizdat,
1953. 647 p.
(MLRA 7:2)
(Road construction)

BABKOV, V.F., professor, doktor tekhnicheskikh nauk; PLOTNIKOV, S.S.,
redaktor; MAL'KOVA, N.V., tekhnicheskiy redaktor

[Highways] Avtomobil'nye dorogi. Moskva, Nauchno-tekhn. izd-vo
avtotransportnoi lit-ry, 1954. 175 p. (MLRA 8:1)
(Roads)

Babkov V.F.

ALEKSANDROV, Boris Sergeyevich; ALEXEYEV, A.P.; ZABOLOTSKIY, F.D.;
KONDAKOV, A.Yu.; NEGODAYEV, V.I.; RYB'YEV, I.A.; SARSATSKIY,
P.I.; CHARUYSKIY, A.P.; SHOMINOV, I.S.; ~~BABKOV~~, V.F., doktor tekhnicheskikh nauk, professor, redaktor; CHVANOV, V.G., redaktor; MAL'KOVA, N.V., tekhnicheskiy redaktor.

[Handbook for road foremen] Spravochnoe rukovodstvo dlja dorozhnogo mastera. Pod red. V.F.Babkova. Moskva, Nauchno-tekhn. izd-vo avto-transportnoi lit-ry, 1954. 450 p. [Microfilm] (MIRA 8:2)
(Roads)

ANDREYEV, Oleg Vladimirovich; BABKOV, Valeriy Fedorovich; GERBURT-
GEYBOVICH, Andrey Vladimirovich; ZAMAKHAYEV, Mitrofan Semenovich;
KRUTETSKIY, Ievgeniy Vladimirovich; ORNATSKIY, Nikolay Petrovich;
SEDEL'NIKOV, Pavel Ivanovich; SMIRNOV, Andrey Sergeyevich; SHRESTAKOV,
P.N.[deceased] PLOTNIKOV,S.A., redaktor; KOGAN, F.L., tekhnicheskij
redaktor.

[Examples of highway design] Primery proektirovaniia avtomobil'nykh
dorog. Izd.2-e, perer. Moskva, Nauchno-tekhn.izd-vo avtotransp.
lit-ry, 1955.283 p.
(Roads) (MLRA 8:12)

BABKOV, V.F.

3854. Babkov, V. F., The resistance of soils to deformation by
different types of loads at different rates of deformation. ^{ZY}

The author has conducted an investigation of the resistance of soils to deformation by different types of loads at different rates of deformation. Author has constructed an apparatus for the demonstration of the correctness of his theory. He states that the resistance of soils to deformation can be most simply defined by the electrical properties of the soil. The author has made measurements of the resistance of soils to penetration by a probe of a given shape and rate of penetration. The results of experiments show that there is a sharp difference between the resistance of soils to penetration by a probe and to deformation by a probe. The author has also demonstrated that the resistance of soils to penetration by a probe depends on the rate of penetration. The author has also demonstrated that the resistance of soils to deformation by a probe depends on the rate of deformation. The author has also demonstrated that the resistance of soils to deformation by a probe depends on the type of load.

MT

Trasnlation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 2, p 99 (USSR) SOV/124-58-2-2201

AUTHOR: Babkov, V. F.

TITLE: Methods for the Determination of Design Values of the Soil-deformation Moduli (Metody opredeleniya raschetnykh znacheniy moduley deformatsii gruntov)

PERIODICAL: V sb.: Opredeleniye modulya deformatsii gruntov. Moscow, Avtotransizdat, 1955, pp 5-16

ABSTRACT: The article provides considerations relative to methods for the determination of the soil-deformation modulus in the subgrade of highway pavements and airport surfaces.

Reviewer's name not given

Card 1/1

BABKOV,V.F., professor, doktor tekhnicheskikh nauk

For a further development of the theory of the durability of
flexible top dressing. Avt. dor. 18 no.3:14-16 My-Je '55.
(Pavements) (MLRA 8:9)

BABKOV, Valeriy Fedorovich; GORBURT-GHEYBOVICH, Andrey Vladimirovich;
MOTYLEV, Yu.L., redaktor; MAL'KOVA, N.V., tekhnicheskiy redaktor

[Principles of soil engineering and soil mechanics] Osnovy
gruntovedeniia i mekhaniki gruntov. Moskva, Nauchno-tekhn. izd-vo
avtotransp.lit-ry, 1956. 307 p. (MIRA 9:9)
(Soil mechanics) (Soils (Engineering))

BABKOV, V.F., prof.

"Concrete roads" [in Czech] by E. Kreps and others.
Reviewed by V.F. Babkov. Avt.dor. 19 no.11:29 N '56.

(MIRA 10:10)

(Roads, Concrete)
(Kreps, E.)

124-1957-1-167

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 17 (USSR)

AUTHOR: Babkov, V. F.

TITLE: On the Resistance to the Motion of Wheeled Vehicles on a Yielding Ground (O soprotivlenii dvizheniyu kolesnykh povoziok po deformiruyushchemusya gruntu)

PERIODICAL: Tr. Mosk. avtomob. -dor. in-ta, 1956, Nr 18, pp 191-198

ABSTRACT: Since the rolling resistance coefficient acting on the several wheels of a vehicle is not the same, the load distribution between axles and the most favorable positioning on the wheels depend on the road conditions. As an example, an analysis of the load distribution between axles is given for an automobile weighing 2.5 and 5 (metric) tons, assumed to be moving across a gunnery range.

K. S. Kolesnikov

1. Vehicles--Motion 2. Wheels--Resistance--Analysis

Card 1/1

BABCOV, V. F., Professor Dr.; BIRULYA, A. K., Prof. Dr.; IVANOV, N. N., Prof. Dr.; PUZAKOV, N. A., Bachelor of Science, The Highway Research Institute
The Automobile and Highway Technical Institutes

"Flexible Pavement Design," a paper submitted at the 4th International Conference of the International Society of Soil Mechanics and Foundation Engineering, London, 12-24 Aug 57.
(references 10 Soviet papers, 1 Hungarian, and 1 Czech paper)

Babkov, V.F.

3-8-14/34

AUTHOR: Babkov, V.F., Professor

TITLE: On the Technology of Asphalt Concrete for Roads (O tekhnologii dorozhnogo asfal'tovogo betona)

PERIODICAL: Vestnik Vysshey Shkoly, 1957, # 8, pp 67-68 (USSR)

ABSTRACT: The article is a short account of an All-Union conference on the technology of asphalt concrete for roads, held at the Moscow Highway Institute, (Moskovskiy avtomobil'nodorozhnyy institut), 58 representatives from industrial, educational and scientific organizations participated. Asphalt-concrete surfaces remain the basic type for city streets and highways. Deficiencies in the building and exploitation of asphalt-concrete surfaces are actually not due to the properties of the material itself but to incorrect methods of application and inadequate selection of basic material.

The conference heard 38 reports, including one by F.T. Fedorov, Chief of the Main Administration for the construction of highways at the USSR Council of Ministers (Glavnoye upravleniye po stroitel'stvu avtomobil'nykh dorog pri sovete ministrov SSSR). Professor N.N. Ivanov and Dotsent

Card 1/2

On the Technology of Asphalt Concrete for Roads

3-8-14/34

F.N.Panteleyev (Moscow Automobile Road Institute) and Academician P.A.Rebinder indicated the possibilities of studying asphalt systems by methods of physico-chemical mechanics. The reports of N.V.Mikhaylov, Doctor of Technical Sciences, and I.A.Ryb'yev, Candidate of Technical Science (Moscow) dealt with the same question. I.A.Mednikov (Moscow Highway Institute), Dotsent B.I.Kogan (Khar'kov Highway Institute-Khar'kovskiy avtomobil'no-dorozhnyy institut), and Candidate of Technical Sciences V.N.Gusev (Leningrad) reported on methods of computing the thickness of the surface. Candidate of Technical Sciences A.I.Lysikhina (All-Union Scientific Research Institute for Highways - Vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut) advised the conference on methods of improving the quality of asphalt concrete.

In a resolution the necessity was stressed to study the durability of asphalt concrete, to improve the technological processes of making asphalt-concrete mixtures, etc.

ASSOCIATION: **Moskovskiy avtomobil'nodorozhnyy institut (Moscow Highway Institute)**

AVAILABLE: **Library of Congress**

Card 2/2

SOV/124-58-7-8047

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 108 (USSR)

AUTHORS: Ivanov, N.N., Babkov, V.F., Birulya, A.K., Puzakov, N.A.

TITLE: The Theory of the Strength Properties of Flexible-type Roadway Pavements (Teoriya prochnosti nezhestkikh dorozhnykh odezhd)

PERIODICAL: V sb.: Materialy k 4-mu Mezhdunar. kongressu po mekhan. gruntov i fundamentostr. Moscow, AN SSSR, 1957, pp 153-165

ABSTRACT: A summary is given of the theory of calculating flexible-type roadway pavements that has been adopted in the USSR and some other countries. Various means are examined whereby the strain characteristics of different types of ground and road-surfacing materials are determined. An account is included of the net results of a study made of water conditions in roadbeds and of subsequently inferred theoretical laws governing ground shifts and moisture accumulations in roadbeds.

Card 1/1 1. Highways--Properties 2. Highways--Flexing P.I. Klubin
 3. Highways--Theory

БАБКОВ, В.П.

BABKOV, V.P., doktor tekhn.nauk.

Developing techniques of designing and constructing road beds.
Avt.dor. 20 no.7:4-6 Jl '57. (MIRA 10:10)
(Road construction)

IVANOV, N.N., doktor tekhn.nauk; ORNATSKIY, N.V., doktor tekhn.nauk;
BABKOV, V.F., doktor tekhn.nauk; MIKHAYLOV, V.V., kand.tekhn.nauk

Achievements of Soviet highway research. Avt.dor.20 no.10:18-20
O '57. (MIRA 10:12)

(Roads--History)

IVANOV, Nikolay Nikolayevich, prof.; ORNATSKIY, Nikolay Vasil'yevich,
prof.; BABKOV, Valeriy Fedorovich, prof.; IYEVLEVA, T.A., red.;
~~MAL'KOVA, N.V.~~, tekhn.red.

[Fourth International Conference on Soil Mechanics and Foundation
Engineering] IV Mezhdunarodnyi kongress po mekhanike grunov i
fundamentostroeniu, London, 1957-g. Moskva, Nauchno-tekhn.izd-vo
M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1958.
178 p. (MIRA 12:6)
(London--Soil mechanics--Congresses) (Great Britain--Road construction)

BABKOV, V.F., BELEN'KIY, I.I., BIRULYA, A.K., prof. doktor tekhn. nauk.;
BIRULYA, V.I., DADENKOV, Yu. N., ZAMAKHAYEV, M.S., KAZANSKIY, K.A., ,
KROKHOD, L.L., KUDRYAVTSEV, A.S., TERENITSKIY, E.S., MAL'KOVA,
N.V., tekhn. red.

[Handbook for road construction engineers; planning highways]
Spravochnik inzhenera-dorozhnika; proektirovaniye avtomobil'nykh
dorog. Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry, 1958. 438 p.
(MIRA 11:10)
(Roads)

DRAFTED BY:

AUTHOR:

Babkov, V.F., Professor

3-58-2-20/33

TITLE:

Intervuz Scientific and Methodical Conferences (Mezhdunuzovskiye nauchnyye i metodicheskiye konferentsii). Problems in Constructing Automobile Roads and Bridges (Problema stroitel'stva avtomobil'nykh dorog i mostov)

PERIODICAL: Vestnik Vysshey Shkoly, 1958, # 2, pp 73 - 74 (USSR)

ABSTRACT:

In November 1957, a conference took place at the Moskovskiy avtomobil'no-dorozhnyy institut (Moscow Automobile-Road Institute) on the construction of automobile roads and bridges. The conference was convened by the Ministerstvo vysshego obrazovaniya SSSR (USSR Ministry of Higher Education). Representatives of higher educational institutions, scientific-research and productional organizations participated.

V.T. Fedorov, Chief of the Main Administration for Constructing Automobile Roads, attached to the USSR Council of Ministers, delivered a report on "The Development of the Construction and Repair Technique, and the Maintenance of Automobile Roads in the USSR During 40 Years of Soviet Power", and S.V. Yevstafeyev, Deputy Chief of the same administration, on "The Mechanization of Road-Constructing Work".

M. Marek, Professor of the Vyssheye Tekhnicheskoye Uchilishche (Czechoslovakia)

Card 1/3

3-58-2-20/33

Intervuz Scientific and Methodical Conferences. Problems in Constructing Automobile Roads and Bridges

(Higher Technical School) in Bratislava submitted information on the construction of automobile roads in Slovakia.

At 9 meetings of the Road Section, problems of improving the technique of geodesic surveys, etc. were discussed. The conference recommended a more effective application of aerial photo survey.

Professor D.P. Velikanov advised the conference on the work carried on at the Institute of Complex Transport Problems of the USSR Academy of Sciences concerning the study of automobile motion under various road conditions. He demonstrated an apparatus for the automatic registration of characteristics of the engine work, speed and automobile control.

N.G. Dombrovskiy, corresponding-member of the Akademiya stroitel'stva i arkhitektury (Building and Architecture Academy) and Professor at the Moskovskiy inzhenerno-stroitel'nyy institut (Moscow Engineering-Construction Institute), informed the conference of the results of investigations, made in 1949-1957, on the work of different type excavators.

Card 2 / 3

3-58-2-20/33

Intervuz Scientific and Methodical Conferences. Problems in Constructing Automobile Roads and Bridges

The Section on Bridge Construction paid much attention to new, progressive designs of bridge construction. The methods of computing the structures were more accurately defined and concrete suggestions were submitted for improving the technique. It was proposed that the construction of small bridges of reinforced concrete be standardized and that structures corresponding to the technical conditions of plant manufacture, be used.

The conference decided to establish a coordinating committee at the Gosudarstvennyy vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut (State All-Union Scientific-Research Road Institute (SOYuZDORNII) to better the liaison between vuzes and research institutes.

ASSOCIATION: Moskovskiy avtomobil'no-dorozhnyy institut (Moscow Automobile-Roads Institute)

AVAILABLE: Library of Congress
Card 3/3

Babkov V.F.

IVANOV, N.N., prof.; ORNATSKIY, N.V., prof.; BABKOV, V.F., prof.

Problems in road construction at the Fourth International Conference
on Soil Mechanics and Foundation Engineering in London. Avt. dor.
21 no.1:24-26 Ja '58. (MIREA 11:1)
(London--Soil mechanics--Congresses.)

B.BKOV
BABKOV, V.P., prof.

Scientific conference on highway and bridge construction. Avt. dor.
21 no.1:37-38 Ja '58. (MIRA 11:1)
(Moscow--Road construction--Congresses)
(Moscow--Bridge construction--Congresses)

BABKOV, V.F.

IVANOV, N.N., prof.; ORNATSKIY, N.V., prof.; BABKOV, V.F., prof.

Roads in southeastern England. Avt. dor. 21 no.2:26-28 F '58.
(MIRA 11;2)
(England--Roads)

Dobrov, V. F.

IVANOV, N.N., prof.; ORHATSKIY, N.V., prof.; BARKOV, V.P., prof.

Highway research center and soil laboratories in England. Avt. dor.
21 no.4:26-28 Ap '58. (MIRA 11:4)
(England--Soil mechanics) (England--Highway research)

BABKOV, V.F., prof., doktor tekhn.nauk

Development of the theory of durability and the design and
construction of earth roadbeds. Trudy MADI no.22:259-278 '58.

(MIRA 12:4)

(Road construction)

BABKOV, V.F., prof., doktor tekhn.nauk

Preface. Trudy MADI no.23:3-4 ' 58.

(MIRA 12:1)

1. Zamestitel' direktora Moskovskogo avtomobil'no-dorozhnogo
instituta po nauchnoy rabote.
(Pavements, Concrete)

BABKOV, Valeriy Fedorovich, prof., doktor tekhn.nauk; BIRULYA, Aleksandr Konstantinovich, prof., doktor tekhn.nauk; SIDENKO, Vladimir Mikhaylovich, kand.tekhn.nauk; IYEVLEVA, T.A., red.; GALAKTIO-NOVA, Ye.N., tekhn.red.

[Roadability of wheeled vehicles on ground] Prokhodimost' kolesnykh mashin po gruntu. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1959. 187 p.
(MIRA 13:1)

1. Moskovskiy avtomobil'no-dorozhnyy institut (for Babkov).
2. Khar'kovskiy avtomobil'no-dorozhnyy institut (for Birulya, Sidenko).

(Motor vehicles--Dynamics)

BABKOV, Valeriy Fedorovich, prof., doktor tekhn.nauk; ZAMAKHAYEV, Mitrofan Semenovich, dotsent, kand.tekhn.nauk; POPOV, O.V., inzh., retsenzent; MOTYLEV, Yu.L., kand.tekhn.nauk, retsenzent; PUZAKOV, N.A., retsenzent; IVANOV, S.S., red.; MAL'KOVA, N.V., tekhn.red.

[Highways] Avtomobil'nye dorogi. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transporta. Pt.1. [Road design] Proektirovaniye dorog. 1959. 559 p. (MIRA 13:2)

1. Prepodavateli Moskovskogo avtomobil'no-dorozhnogo instituta (for Bobkov, Zamakhayev).
(Roads--Design)

BABKOV, V.F.

PHASE I BOOK EXPLOITATION

SOV/4727

Mogilevskiy, Dmitriy Aleksandrovich, Valeriy Fedorovich Babkov, Andrey Sergeyevich Smirnov, Leonid Tikhonovich Abramov, Filipp Yakovlevich Zaytsev, Mitrofan Semenovich Zamakhayev, and Sergey Mikhaylovich Nikitin

Izyskaniya i proyektirovaniye aerodromov (Site Selection and Planning of Airfields)
Moscow, Avtotransizdat, 1959. 566 p. Errata slip inserted. 1,300 copies printed.

Ed.: (Title page): V.F. Babkov, Doctor of Technical Sciences, Professor; Ed.
(Inside book): V.G. Chvanov; Tech. Ed.: N.V. Mal'kova.

PURPOSE: This textbook is intended for students of schools of higher education specializing in airfield-construction engineering and students of teknikums and other schools studying airfield construction. It may also be used by staff members of organizations for airfield planning, construction, and operation.

COVERAGE: The book deals with the principal requirements for airfield design and construction. The topics discussed include landing-strip dimensions, relief and drainage patterns, and the design and construction of surfaces and pavements. Airfield site selection is also included. The book purportedly reflects methods

Card 1/15

Site Selection and Planning of Airfields

SOV/4727

used in the USSR and other countries and developmental trends in airfield design and planning. Section 3, Chapter 2, Section 18, Chapter 5, Chapters 21 to 24 (excluding Section 93), and Chapters 26 to 30 were written by V.F. Babkov. Chapters 11 to 15 and Section 93, Chapter 22 were written by Candidate of Technical Sciences L.T. Abramov. The Introduction, Chapters 1 to 5 (excluding Sections 3, 18, and 21), Chapters 8 to 10, and Chapter 20 were written by Docent D.A. Mogilevskiy. Chapters 18, 19, and 25 to 32 were written by Candidate of Technical Sciences A.S. Smirnov; Chapters 16 and 17, by Candidate of Technical Sciences F. Ya. Zaytsev; Chapter 6, by F. Ya. Zaytsev and A.S. Smirnov; Chapter 31, by Candidate of Technical Sciences M.S. Zamakhayev; and Section 21, Chapter 5, and Chapter 7, by Engineer S.M. Nikitin. Reviewers are Professor A.K. Birulya; staff members of an airfield-planning organization under the direction of Candidate of Technical Sciences P.A. Dudkin and including V.N. Avdeyev, V.A. Kartashev, A.G. Pal'chev, A.N. Popov, and I.G. Ptitsin; and a team of instructors from the Khar'kovskiy avtomobil'no-dorozhnyy institut (Khar'kov Automobile and Highway Institute) under the direction of Professor I.A. Romanenko and including L.A. Barats, N.I. Baskevich, A. Ye. Bel'skiy, and Ya. A. Kaluzhskiy. There are no references.

Card 2/15

Site Selection and Planning of Airfields

SOV/4727

TABLE OF CONTENTS:

Foreword	3
Introduction	5
PART I. BASIC INFORMATION ON THE GENERAL PLAN OF AIRPORTS	
Ch. I. Airports of the Civil Air Fleet	
1. Basic information on airports	21
2. Types of airports and airfields	23
Ch. II. Basic Elements of an Airfield	
3. Fundamentals of the theory of aircraft traffic on the airfield	25
4. Basic elements of the airfield	31
5. Flying area	32
Ch. III. Transportation Functions of the Airport	
6. Transportation operations of the airport	37

Card 3/35~

~~Site Selection and Planning of Airfields~~

SOV/4727

7. Providing service to passengers and aircraft at the airport	42
8. Traffic capacity of the airport	45

~~Ch. IV. Engineering Structures in the Landing Area~~

9. Runways	49
10. Taxiways	50
11. Aircraft parking areas	53
12. Airfield lighting and radio facilities	57
13. Building area	65
14. Structures and buildings for transport operations	66
15. Grouping of administrative, service, operational, and maintenance-and-repair buildings	71
16. Depots and storage facilities	76
17. Residential zone	83

~~Ch. V. Principles of Airport Planning~~

18. Influence of natural conditions on airfield operation	85
19. Location of runways	93
20. Basic systems of airport planning	99
21. Information on the general plan of airports for amphibious aircraft	111

Card 4/15

Site Selection and Planning of Airfields	SOV/4727
78. Improved crushed-stone pavements with organic binding materials	318
79. Subgrade for flexible pavements	319
80. Subgrades made of earth and binding materials	321
81. Subgrades made of industrial byproducts and low-strength local materials	327
Ch. XIX. Prefabricated Surfacings	
82. Field of application of prefabricated surfacings; structural requirements	331
83. Efficiency of metal-plate airfield surfacings	337
Ch. XX. Turfed Airfield Surfacings	
84. Purpose of turf; strength requirements	338
85. Turf-producing vegetation	343
86. Conditions of grass development and growth	349
Ch. XXI. Planning of Unpaved Landing Strips	
87. Requirements for unpaved flight strips; strength	357
88. Resistance of an aircraft wheel to rolling over an unpaved flight strip	359
89. Takeoff, landing, and braking areas	365

Card 10/15

Site Selection and Planning of Airfields

SOV/4727

PART VI. CALCULATION AND CONSTRUCTION OF AIRFIELD PAVEMENTS

<u>Ch. XXII. Aircraft-Generated Forces Acting Upon Airfield Pavements</u>	
90. Aircraft wheel-generated forces acting upon pavements	369
91. Action of air streams and gases from jet engines upon pavements	382
92. Consideration of the characteristic features of the action of aircraft on areas of runway pavements (unequal-strength pavements)	384
<u>93. Calculated loads on runway pavements</u>	<u>386</u>
<u>Ch. XXIII. Performance of Earth in Subgrades Under Airfield Pavements</u>	
94. Change in the condition of subgrade earth in the course of the year	389
95. Winter redistribution of moisture in pavement subgrades and the heaving process	393
96. Regulation of water conditions in earth subgrades under airfield pavements; prevention of ground heaving	400
97. Climatic zoning of the USSR	408
98. Ground-deformation modulus	412
99. Calculation values of strength characteristics of earth and materials in pavements	416

Card 11/15

Site Selection and Planning of Airfields

SOV/4727

Ch. XXIV. Calculation and Construction of Flexible Pavements

100. Purpose of constructions of airfield pavements	421
101. Determination of the thickness of structural layers of flexible airfield pavements	424
102. Consideration of the effect of dual wheels in the calculation of flexible pavements	432
103. Strength characteristics of flexible pavements by means of the equivalent modulus; effect of repetition of applied loads	433

Ch. XXV. Calculation of Rigid (Concrete) Pavements

104. Performance of concrete pavements under external loads and subjected to natural factors	437
105. Fundamental information on strength calculation of concrete pavements	439
106. Fundamentals of calculating slabs resting on an elastic subgrade	442
107. Determination of moments and depressions due to aircraft-wheel loads acting on the centers of slabs of concrete pavements	448
108. Determination of bending moments and stresses due to aircraft-wheel loads acting on the edges and corners of slabs	459
109. Temperature stresses in concrete pavement slabs	462
110. Purpose of strength parameters for calculating concrete pavements	469

Card 12/15

Site Selection and Planning of Airfields SOV/4727

111. Sequence of calculation for concrete pavements	475
112. Calculation of reinforcement for concrete pavements	476
113. Fundamentals of calculating reinforced-concrete pavements	480
114. Calculation of lower-standard reinforced-concrete pavements	484
115. Calculation of prestressed reinforced-concrete pavements	487

PART VII. PLANNING OF AIRFIELDS UNDER COMPLEX NATURAL CONDITIONS

Ch. XXVI. Planning of Airfields in Excessively Humid Regions

116. Natural conditions of various regions of the USSR	492
117. Characteristic features of planning of airfields on permafrost ground	495
118. Planning of airfields in swampy regions	506

Ch. XXVII. Characteristic Features of Planning of Airfields in Arid Regions

119. Planning of airfield in salt-rich zones	513
120. Characteristic features of planning of airfields in regions of drifting sand	517

Card 13/15

Site Selection and Planning of Airfields

SOV/4727

PART VIII. AIRFIELD SITE SELECTION AND COMPILATION OF THE PLAN

Ch. XXVIII. Organization of Site Selection	
121. General objectives of site selection	524
122. Organization of site-selection operations	526
Ch. XXIX. Preliminary Site Selection to Compile the Plan Objectives	
123. Preliminary site selection	528
124. Compilation of plan tasks	533
Ch. XXX. Technical Investigations and Compilation of the Technical Plan and Working Drawings	
125. Technical investigations	534
126. Technical plan	535
Ch. XXXI Geodesic Operations During Site Selection	
127. Content of geodesic operations accompanying the survey of airfield terrain	537
128. Content of geodesic operations accompanying investigations for access railroad lines and utility facilities	

Card 14/15

BABKOV, V.F., prof., doktor tekhn.nauk

More attention to traffic safety. Avt.dor. 22 no.3:2-4 Mr '59.
(MIRA 12:4)
(Traffic safety)

BABKOV, V.F., FEDOROV, V.T.

Highways in West Germany. Avt. dor. 22 no, 5:26-29 My '59.
(MIRA 12:7)
(Germany, West--Roads)

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102910015-2

BABKOV, V.F.; MEDOROV, V.T.

Roads in Western Germany. Avt.dor. 22 no.7:30-33 J1 '59.
(MIRA 12:9)
(Germany, West--Roads)

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102910015-2"

BABKOV, V.F.; FEDOROV, V.T.

Road maintenance and repair work in West Germany. Avt. dor. 22 no.10:
27-28 O '59. (MIRA 13:2)
(Germany, West--Roads--Maintenance and repair)

BABKOV, V.F., prof.

Valuable contribution to literature on road construction
("Surveying and construction of highways with relation to
the landscape features" by M.Gosa, V.Vesely. Reviewed by
V.P.Babkov). Avt.dor. 22 no.11:25 N '59. (MIRA 13:2)
(Road construction) (Gosa, M.) (Vesely, V.)

BABKOV, Valeriy Fedorovich

Avtomobil'nyye dorogi; osnovnyye svedeniya o dorogakh
dlya avtomobilistov. Izd. 2., perer. i dop. Moskva,
Avtotransizdat, 1960.

238 p. illus., diagrs., graphs, tables.
Includes references.

BABKOV, Valeriy Fedorovich, prof., doktor tekhn.nauk; ZUBKOVA, M.S.,
red.; MAL'KOVA, N.V., tekhn.red.

[Highways; basic information on highways for automobile
drivers] Avtomobil'nye dorogi; osnovnye svedeniia o dorogakh
dlia avtomobilistov. Izd.2., perer. i dop. Moskva, Nauchno-
tekhn.izd-vo M-va avtomobil'nogo transporta i shosseinykh
dorog RSFSR, 1960. 238 p.
(Roads) (MIRA 13:7)

BABKOV, Valeriy Fedorovich, prof.; VOLKOV, Aleksandr Yakovlevich,
dotsent; GEBURT-GEYBOVICH, Andrey Vladimirovich, dotsent;
MIKHAYLOV, Valentin Vasill'yevich, dotsent; ZUBKOVA, M.S.,
red.; MAL'KOVA, N.V., tekhn.red.

[Highways] Avtomobil'nye dorogi. Moskva, Nauchno-tekhn.izd-vo
M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR. Pt.2.
[Construction, maintenance, and repair] Stroitel'stvo, remont
i soderzhanie dorog. 1960. 307 p. (MIRA 14:2)
(Road construction)

BABKOV, VALERIY FEDOROVICH

Avtomobil'Nyye Dorogi, By V.F. Babkov Dr.
Moskva, Avtotransizdat, 1960

V. Illus., Diagrs., Graphs, Tables. Includes References.

Contents: V.1: - Osnovnyye Svedeniya O Dorogakh Dlya
Avtomobilistov. V.2: -Stroitel'Stvo, Remont Soderzhanije Dorog.

KRIVIISKII, Aleksandr Mikhaylovich, kand. tekhn. nauk; BABKOV, V.F.,
red.; DONSKAYA, G.D., tekhn. red.

[New systems for designing flexible road surfaces] Novye skhe-
my dlia rascheta nezhestkikh dorozhnykh odeshd. Moskva, Nauchno-
tekhn. izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog
RSFSR, 1961. 75 p. (MIRA 14:5)

(Pavements)

BABKOV, Valeriy Fedorovich, prof., doktor tekhn. nauk; ZAMAKHAYEV,
M.S., red.; DONSKAYA, G.D., tekhn. red.

[Modern highways] Sovremennye avtomagistrali. Moskva, Nauchno-
tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog
RSFSR, 1961. 230 p. (MIRA 15:2)
(Roads) (Road construction)

BABKOV, V.F.

Fifth International Congress on Soil Mechanics and Foundation Construction. Avt. dor. 24 no.10:25-27 O '61. (MIRA 14:11)
(Soil mechanics--Congresses) (Foundations--Congresses)

SIBIRKO, Antonina Nikolayevna; KHAVKIN, Klimentiy Aronovich; BABKOV, V.F.,
red.; GANYUSHIN, A.I., red. izd-va; GALAKTIONOVA, Ye.N., tekhn.
red.

[Calculation of volumes of road earthwork on electronic
calculating machines] Podschet ob"emov zemlianykh rabot avto-
mobil'nykh dorog na elektronnykh vychislitel'nykh mashinakh.
Moskva, Avtotransizdat, 1962. 79 p. (MIRA 15:10)
(Electronic calculating machines) (Roads--Design)
(Earthwork)

BABKOV, V.F.

Toll highway in the south of France. Avt. dor. 25 no. 2:27-
29 F '62. (MIRA 15:2)
(France--Toll roads)

ANDREYEV, B.V.; ARTEM'YEV, S.P.; ARKHANGEL'SKIY, V.M; AFANAS'YEV, L.L.;
BABKOV, V.F.; BRONSHTEYN, L.A.; BURKOV, M.S.; BURYANOV, V.A..;
~~VARSHAVSKIY, I.L.~~; VELIKANOV, D.P.; VOINOV, A.N.; VIRUBOV, D.N.;
DORMIDONTOV, A.V.; D'YACHKOV, A.K.; YEFREMOV, V.V.; ZHABIN, V.M.;
ZELENKOV, G.I.; KALABUKHOV, F.V.; KALISH, G.G.; KRAMARENKO, G.V.;
KRASIKOV, S.M.; LAKHTIN, Yu.M.; MIKULIN, A.A.; ORLIN, A.S.; OSTROVSKIY,
N.B.; OSTROVTSOV, A.N.; RUBETS, D.A.; STEPANOV, Yu.A.; STECHKIN, B.S.;
KHACHATUROV, A.A.; KHOVAKH, M.S.; CHARONSKIY, A.D.; SHARAPOV, K.A.

Nikolai Romanovich Briling; obituary. Avt.transp. 39 no.4:57
(MIRA 14:5)
Ap '61. (Briling, Nikolai Romanovich, 1876-1961)

SLAVUTSKIY, Aleksandr Kel'manovich; BABKOV, V.F., doktor tekhn. nauk, prof., retsenzent; POLIVANOV, N.I., doktor tekhn. nauk, prof., retsenzent; KALUZHSKIY, Ya.A., doktor tekhn. nauk, prof., retsenzent; KRUTETSKIY, Ye.V., dots., red.; OVSYANNIKOVA, Z.G., red.izd-va; MURASHOVA, V.A., tekhn. red.

[Rural roads] Sel'skokhoziaistvennye dorogi. Moskva, Vys-shaia shkola, 1963. 466 p. (MIRA 16:6)
(Road construction)

MOGILEVSKIY, Dmitriy Aleksandrovich, dots.; BABKOV, Valeriy
Fedorovich, prof., doktor tekhn. nauk; SMIRNOV, Andrey
Sergeyevich, dots., kand. tekhn.nauk; ABRAMOV, Leonid
Tikhonovich, kand. tekhn. nauk; ZAYTSEV, Philipp
Yakovlevich, kand. tekhn. nauk; ZAMAKHAYEV, Mitrofan
Semenovich, prof., kand. tekhn. nauk; NIKITIN, Sergey
Mikhaylovich, inzh.; DEBERDEYEV, B.S., red.;
GALAKTIONOVA, Ye.N., tekhn. red.

[Survey and design of airports] Izyskania i proektirovaniye aerodromov. [By] A.Mogilevskii i dr. Izd.2. Moskva,
Avtotransizdat, 1963. 703 p. (MIRA 16:11)
(Airports--Design and construction)

BABKOV, Valeriy Fedorovich, prof.; ORNATSKIY, Nikolay Vasil'yevich,
prof.; MASLOV, Nikolay Nikolayevich, prof.; IVANOV,
Nikolay Nikolayevich; KOVRIZHNYKH, L.P., red.; GALAKTIONOVA,
Ye.N., tekhn. red.

[Problems of road construction at the 5th International
Conference on Soil Mechanics and Foundation Engineering,
Paris, 1961] Voprosy dorozhnogo stroitel'stva na V Mezhdunarodnom kongresse po mekhanike gruntov i fundamentostroeniiu,
Parizh, 1961. [By] V.F.Babkov i dr. Moskva, Avtotransizdat,
(MIRA 17:4)
1963. 200 p.

BABKOV, V.F.; KLINKOVSHTEYN, G.I., kand. tekhn. nauk, retsenzent;
ALEKSEYEV, A.P., inzh.

[Road conditions and traffic safety] Dorozhnye usloviia i
bezopasnost' dvizheniia. Moskva, Izd-vo "Transport," 1964.
188 p. (MIRA 17:7)

ORNATSKIY, Nikolay Vladimirovich, prof., doktor tekhn. nauk;
KISELEVSKIY, Aleksey Nikolayevich, dots.; ORNATSKIY,
Nikolay Petrovich, kand. tekhn. nauk; ANDREYEV, Oleg
Vladimirovich, kand. tekhn. nauk, dots.; IVANOV,
Nikolay Nikolayevich, zasl. deyatel' nauki i tekhniki
RSFSR, prof., doktor tekhn. nauk; BIRUIYA, Aleksandr
Konstantinovich, prof., doktor tekhn. nauk; BABKOV, V.F.,
prof., doktor tekhn. nauk; NOVIKOV, L.V., prof.,
retsenzent

[Automobile roads; an introductory course] Avtomobil'nye
dorogi; vvodnyi kurs. Moskva, Vysshiaia shkola, 1964. 294 p.
(MTRA 18:4)

1. Kiyevskiy avtomebil'no-dorozhnyy institut (for Ornatskiy, N.V.,
Kiselevskiy, A.N., Moskovskiy avtomebil'no-dorozhnyy institut
(for Ornatskiy, N.P., Andreyev, Ivanov, D.N.); 3. Khar'kov-
skiy avtomebil'no-dorozhnyy institut (for Birulya). 4. Vojen-
naya Akademiya Tyla i Transporta (for Novikov).

BABKOV, Valeriy Fedorovich, prof., doktor tekhn. nauk; GERSEVICH-
CEYBOVICH, Andrey Vladimirovich, dots., kand. tekhn.
nauk; DENISOV, N.Ya., prof., doktor geol.-miner. nauk,
retsenzent; MAKSIMOV, S.N., nauchn. red.

[Principles of soil science and soil mechanics] Osnovy
gruntovedeniia i mekhaniki gruntov. Izd.2. Moskva,
Vysshiaia shkola, 1964. 365 p. (MIRA 18:2)

BABKOV, V.F.

[Blending highways with the landscape] Sochetanie avto-mobil'nykh dorog s landshaftom. Moskva, Vysshiaia shkola, 1964. 65 p. (MIRA 18:5)

I 61859-65
AM4033657

BOOK EXPLOITATION

6

UR/

641

629.139.001.2.001.12(075.8)

Mogilevskiy, Dmitriy Aleksandrovich; Babkov, Valeriy Fedorovich; Smirnov, Andrey Sergeyevich; Abramov, Leonid Tikhonovich; Zaytsev, Filipp Yakovlevich; Zamakhayev, Mitrofan Semenovich; Nikitin, Sergey Mikhaylovich

Surveying and planning of airfields (Izyskaniya i proyektirovaniye aerodromov)
2d ed. Moscow, "Avtotransizdat", 1963, 703 p. illus., bibli. charts. 2,700 copies printed.

TOPIC TAGS: airfield engineering, runway construction, structural engineering, general construction

PURPOSE AND COVERAGE: The book presents the basic problems and principles of air field planning and construction. The requirements of airfields are stated in terms of dimensions, land contour, drainage, surfaces, and subsurfaces. The book then discusses the basic construction and engineering methods developed to meet these requirements. The book concludes with an explanation of how to make surveys and draw up plans for prospective air field sites.

Card 1/5

L 61859-65

AM4033657

TABLE OF CONTENTS:

Foreward -- 3
Introduction -- 5

Part I. Basic concepts of airport planning

- Ch. I. Airports for civil aircraft -- 24
- Ch. II. Basic elements of an airfield -- 29
- Ch. III. Technology of airport transport services -- 44
- Ch. IV. Structures in the flying zone -- 56
- Ch. V. Buildings in the service zone -- 83
- Ch. VI. Principles of airport planning -- 116

Part II. Dimensions of the airfield and the approach zone

- Ch. VII. Calculating the dimensions of the parts of the airfield and the approach zone -- 153
- Ch. VIII. Technical specifications for airport planning -- 193

Card 2/5

L 61859-65
AM4033657

Part III. Planning the contours of airfields

- Ch. IX. Land contours needed for airfields -- 200
Ch. X. Methods and sequence for making vertical contour plans -- 219
Ch. XI. Determining the extent of earth moving work in airfield construction -- 260

Part IV. Drainage of airfields

- Ch. XII. Basic principles of water drainage on airfields -- 273
Ch. XIII. Meteorological and hydrologic principles in the design of drainage facilities -- 276
Ch. XIV. Drainage for take-off and landing strips, runways, and aircraft parking areas -- 296
Ch. XV. Planning drainage systems for airfields -- 320
Ch. XVI. Hydrologic and hydraulic design for drainage systems -- 341

Part V. Constructing artificial surfaces for airfields

- Ch. XVII. Types of artificial surfacing -- 355

Card 3/5

L 61859-65
AM4033657

- Ch. XVIII. Rigid surfaces -- 361
- Ch. XIX. Flexible surfaces -- 400
- Ch. XX. Temporary collapsible surfaces -- 421
- Ch. XXI. Sod surfaces for airfields -- 428
- Ch. XXII. Planning unsurfaced landing strips -- 449

Part VI. Design and construction of airfield surfaces

- Ch. XXIII. Effect of aircraft on airfield surfaces -- 463
- Ch. XXIV. Problem of heaving in subsurfaces of airfields -- 487
- Ch. XXV. Design and construction of flexible surfaces -- 533
- Ch. XXVI. Planning the thickness of rigid (concrete) surfaces -- 554

Part VII. Planning airports in complex natural conditions

- Ch. XXVII. Planning airfields in areas of excessive moisture -- 623
- Ch. XXVIII. Special problems of planning airfields in arid regions -- 645

Part VIII. Surveying and drawing up plans for airports

Card 4/5

L 61859-65
AM4033657

- Ch. XXIX. Organization of surveys to determine airfield sites -- 658
Ch. XXX. Preliminary survey for drawing up prospective site plans -- 663
Ch. XXXI. Technical survey for drawing up a technical and working plan -- 669
Ch. XXXII. Geodesic work in the surveys -- 673
Ch. XXXIII. Engineering-geological surveys -- 684

SUB CODE: AC, GO

SUBMITTED: 16Jul63

NO REF Sov: 034

OTHER: 002

282
Card 5/5

BABKOV, V.F.; POPOVA, N.N., red.

[Securing traffic safety in designing, constructing and
reconstructing highways] Obespechenie bezopasnosti dvi-
zheniiia pri proektirovani, stroitel'stve i rekonstruktsii
avtomobil'nykh dorog. Moskva, Vysshiaia shkola, 1964. 28 p.
(MIRA 18:5)

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102910015-2

BABKOV, V.F., prof.

Numbers and facts. Avt. dor. 28 no.2:2-5 F '65.

(MIRA 18:6)

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102910015-2"

BABKOV, V.F., prof.

Better evaluation of transportation properties of highways.
Avt.dor. 28 no.10:3-5 O '65.

(MIRA 18:11)

ACC NR: AM'002944

(A)

Monograph

UR/

Andreyev, Oleg Vladimirovich; Babkov, Valeriy Fedorovich; Gerburt-Geybovich, Andrey Vladimirovich; Krutetskiy, Yevgeniy Vladimirovich; Zamakhayev, Mitrofan Semenovich; Afanas'yev, Mikhail Borisovich; Bim-Bad, Maks Isaakovich; Ornatskiy, Nikolay Petrovich; Porozhnyakov, Vladimir Sergeyevich; Pryakhin, Aleksey Ivanovich; Sebel'nikov, Petr Ivanovich

Highway designing (Examples) (Proyektirovaniye avtomobil'nykh dorog (primary), Moscow, Izd-vo "Transport", 66, 0395 p. illus., biblio., tables. 6,000 copies printed, 3d ed., rev.

TOPIC TAGS: highway network, highway engineering, highway structure, hydraulic engineering, hydrological calculation

PURPOSE AND COVERAGE: The book gives technico-economic fundamentals for road network designing, and presents examples of transverse and longitudinal cross sections as well as methods of determining openings in small artificial structures. Calculations of earth bed stability and thickness of road pavements are given; planning and design of highways in complicated conditions is described. Hydrological and hydraulic calculations involved in the planning of crossings of

Card 1/3

UDC: 625.721.2(075.8)

ACC NR: AM7002944

large water expanses are examined. The book is intended primarily as a textbook for highway engineering students at institutions of higher learning and may likewise be useful for engineers and technicians. The authors express their gratitude to the reviewers: professors, doctors of technical sciences Ya. A. Kaluzhskiy and I. A. Romanenko; to docents, candidates of technical sciences V. A. Bogayeva, L. A. Barats, N. I. Baskevich, V. M. Kislyakov, and I. A. Nosich; to the chief engineer of the GPI Soyuzdorprojekt V. B. Zavadskiy, and to engineers A. A. Semenovskiy, M. L. Sokolov, and A. S. Fedner; also to instructors of MADI, doctor of technical sciences L. A. Bronshteyn, and candidate of technical sciences Ye. N. Garmanov.

TABLE OF CONTENT [abridged]:

Foreword -- 3

- Ch. 1. Designing of highway networks and technical and economic comparison of alternative designs -- 5
- Ch. 2. Designing a highway -- 28
- Ch. 3. Calculation of earth bed stability and thickness of road covers -- 206

Card 2/3

ACC NR: AM7002944

Ch. 4. Highway designing in difficult terrain -- 285
Ch. 5. Highway designing in urban conditions -- 328
Ch. 6. Planning of highway reconstructions -- 354
Ch. 7. Hydrological and hydraulic calculations of crossings over large water expanses -- 380

Literature -- 399

SUB CODE: 13/ SUBM DATE: 08Jul66/ ORIG REF: 003/

Card 3/3

GOROKHOV, P.V.; BABKOV, V.P.

Fulfillment of the established plan by all enterprises
is the basis of the creation of the material and technical
base of communism. Ugol' 38 no.9:3-4 S '63.

(MIRA 16:11)

1. Upravlyayushchiy trestom Kalininugol' Donetskogo soveta
narodnogo khozyaystva (for Gorokhov). 2. Glavnyy inzhener
tresta Kalininugol' Donetskogo soveta narodnogo khozyaystva
(for Babkov).

ACC NR: AT7002109

(N)

SOURCE CODE: UR/0000/66/000/000/0243/0248

AUTHOR: Babkov, V. V.; ReytBlat, Z. V.

ORG: none

TITLE: A photoelastic transducer for measuring deformation

SOURCE: Vsesoyuznaya konferentsiya po polyarizatsionno-opticheskому методу исследования напряжений. 5th, Leningrad, 1964. Polyarizatsionno-opticheskiy metod issledovaniya napryazheniy (Polarizing-optical method of investigating stresses); trudy konferentsii. Leningrad, Izd-vo Leningr. univ., 1966, 243-248

TOPIC TAGS: photoelasticity, elastic deformation, elasticity theory, elastic modulus, creep mechanism

ABSTRACT: A theoretical analysis was done on a photoelastic transducer for measuring deformation. A wedge-shaped transducer was chosen with variable width $a(x)$ and thickness $\delta(x)$. Both the elastic modulus and photoelastic band width of the transducer remained constant with temperature in the range 20-40°. An equilibrium equation was given for deformation which included the coefficient of linear expansion of the transducer and tested material. An analysis of this equation was done for thermal and non-thermal compensation. A schematic drawing showed the top and side views of the attached transducer. Each end was bonded to a surface for stress measurements. A photograph showed the photoelastic lines which resulted from stressing a surface with a

Card 1/2

ACC NR: AT7002109

bonded transducer. The lines decreased in width along the transducer due to the variable width and thickness. Equations were given for linear deformation and for the tilt angle between the ends of the transducer, which was derived from the bending moment acting on the assembly. Other varieties of photoelastic pickups were considered: hyperbolic design with equal line spacings, rectangular, circular, and strips glued on surfaces. For the wedge-shaped and hyperbolic types, the relative linear deformation was given as a function of standardizing coefficient, coordinates of two arbitrary lines, and the number of lines between these coordinates. Creep characteristics of the bonding glue were studied in order to estimate measurement errors from this effect. An equation was given for the creep rate in the second stage (constant rate) as a function of time. The best creep parameters were obtained with glues that were used without plasticizers. The elastic modulus of the glue stabilized in 4 days. Typical uses of these techniques were outlined. Orig. art. has: 2 figures, 10 formulas.

SUB CODE: 11,13,14/SUBM DATE: 14Jun66/ ORIG REF: 003

Card 2/2

L 00354-66 EWT(m)/EWP(w) EM

ACCESSION NR: AP5018155

UR/0097/65/000/007/0023/0026

69.058.2

AUTHORS: Babkov, V. V. (Engineer); Reyblat, Z. V. (Engineer)

TITLE: Photoelastic transducer for measuring linear deformations

SOURCE: Beton i zhelezobeton, no. 7, 1965, 23-26

TOPIC TAGS: material strength, deformation meter, photoelasticity

ABSTRACT: The construction and use of transducers (made from an optically active material) for measuring linear deformations on the surface of concrete are discussed. The principal purpose of the article is to resolve questions of construction and application. Certain other aspects of the same problem area were treated previously by the authors (Metod fotouprugikh pokrytiy i yego primeneniye k issledovaniyu zhelezobetonykh konstruktsiy. BashNIISstroy. Sbornik trudov instituta. Vyp. IV, 1964). The photoelastic transducer is a molded strip made from an optically active material equipped with foil serving as a reflecting layer attached to one side. The strip may be attached only at its ends. The arrangement is such that deformations in the tested material result in a corresponding quantifiable optical effect. The authors worked through the derivation of the

Card 1/2

L 00354-66

ACCESSION NR: AP5018155

optical working equations. Deformations of the optical material are related to its geometric configuration and to Poisson's ratio. The optical material deformation is derived from the equation

$$\epsilon_x = \frac{1}{l} \sigma_{x_0} n(x_0) a(x_0) \int_0^l \frac{ax}{a(x) t(x) E(x)} dx$$

where σ_x is the tensile stress in the material strip, l is the base of the material, $n(x_0)$ and $a(x_0)$ are the magnitude of the strip and the width of the transducer from the point of observation x_0 , and $a(x)$, $t(x)$, and $E(x)$ are the width, thickness, and modulus of elasticity of the transducer material as a function of x . Five types of optical test strips are described along with the best uses of each. The results of the use of the strips in deformation tests are discussed. The five strips differ mainly in layer configuration and manner of attachment. The authors suggest that the strips described are inexpensive, easy to use, and quite reliable. Orig. art. has: 8 figures and 10 equations.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: ME, MT

NO REF Sov: 003

OTHER: 000

Card 2/2 of

28-58-1-4/34

BABKOV, V. Ya.

AUTHOR:

Babkov, V.Ya., Engineer

TITLE:

The Use of Preference Numbers in the Production of Chemical Apparatuses (Primeneniye predpochtitel'nykh chisel v khimi-cheskom apparatostroyenii)

PERIODICAL:

Standartizatsiya, 1958, # 1, pp 16-17 (USSR)

ABSTRACT:

At present, NIIKhIMMash is working on a parameter series system for designs of welded vessels used by food, medicine, oil, and other chemical industries. The system will be based on the preference numbers series of the "GOST 8032-56"-standard. From the existing 35 sizes of vessel bottoms ranging from 400 to 4,000 mm in diameter, 14 will be eliminated. The number of the existing standard steel sheet widths will be cut from 9 to 4, and vessels of smaller size will be made from sheets cut in half. The system will eliminate all waste, since the sheets will not have to be cut to other widths. Both storage and supply will be made easier. The principle of the new system is explained and two tables show the new parameters.

There are 2 tables.

Card 1/2